

Chapter 2

Strategic Mobility Automation Support Systems

The JPEC, and more specifically USTRANSCOM, obtains unit movement requirements from several systems. Unit movement requirements are compiled in an AUEL. The JPEC uses AUEL data to quantify deployment requirements for JOPES and theater specific movement requirements. This chapter identifies critical automated mobility systems and shows their interface with other automated systems in support of strategic deployment planning and execution. Since unit and individual deployment are essential to the conduct of war, this chapter will briefly identify critical personnel automated computer systems.

STRATEGIC PLANNING SYSTEMS

2-1. An overview of how to accomplish strategic deployment planning is needed to fully appreciate the complex processes involved. The systems used in developing strategic deployment plans are the WWMCCS and JOPES. The following paragraphs give a general description of WWMCCS and JOPES. Refer to FM 100-17 for additional information on these systems.

WORLDWIDE MILITARY COMMAND AND CONTROL SYSTEM

2-2. WWMCCS provides the means for operational direction and technical administrative support needed to command and control US military forces. The system is comprised of the NMCS, the C4 systems of combatant commands, service component commands, DOD agencies, and WWMCCS-related management/information systems (see Figure 2-1, page 2-1). The system provides secure communications among those who make decisions. It also transmits their decisions to subordinates in the form of military orders.

2-3. WWMCCS encompasses many systems ranging from national to theater level. It interfaces with other systems such as the Presidential Command and Control Facilities, non-DOD systems, and tactical command and control systems that support subordinate military service units. With the WIN, users can communicate with other users, review and update data at other WWMCCS locations, and transfer data accurately and rapidly between commands.

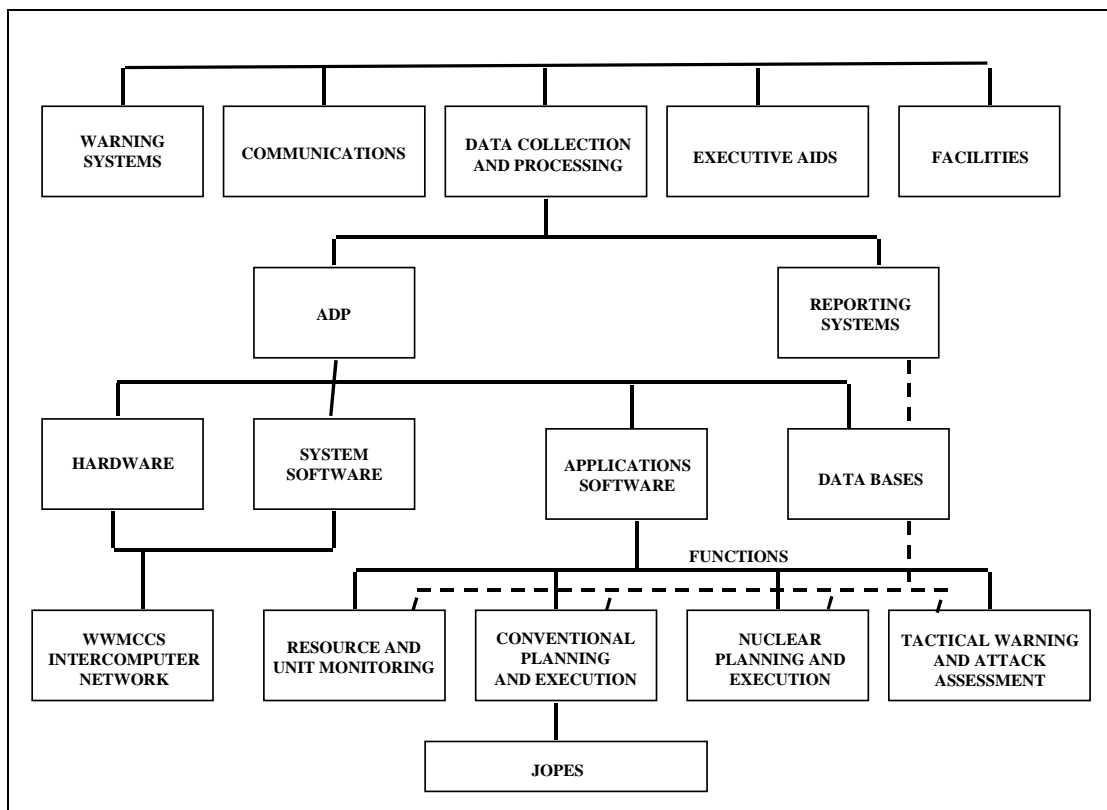


Figure 2-1. Elements of WWMCCS

JOINT OPERATIONS PLANNING AND EXECUTION SYSTEM

2-4. JOPES is the DOD system used to conduct joint planning and operations. It establishes an ordered and comprehensive set of procedures used in both deliberate planning and CAP of joint operations. It is oriented towards solving the complex strategic mobility problem associated with deploying and sustaining the force. JOPES is used by senior-level decision makers to plan and execute mobilization, monitor deployment, employment, sustainment, and redeployment activities. It supports the national, theater, and supporting organizational levels in both peacetime and in crisis (see Figure 2-2, page 2-2).

2-5. The JOPES has two end products (OPLANs and OPORDs). OPLANs are the result of deliberate planning conducted during peacetime. OPORDs are the result of crisis (time-sensitive) planning conducted in an emergency.

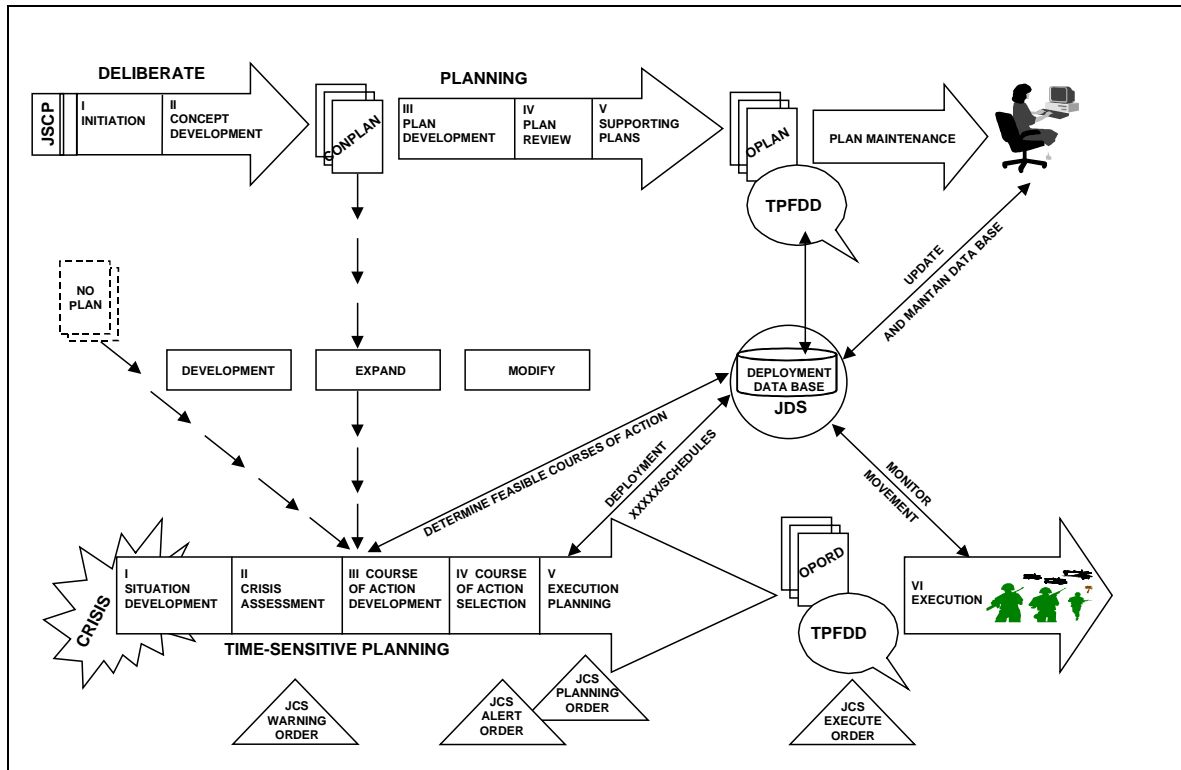


Figure 2-2. JOPES for Crisis Action

ARMY MOBILIZATION AND OPERATIONS PLANNING EXECUTION SYSTEM

2-6. AMOPES identifies active and reserve component major Army combat forces available to execute operational plans. It sets priorities for the apportionment of CS and CSS units (below-the-line units) in conjunction with the OPLANs. AMOPES provides mobilization and deployment definitions and guidance for planning and execution along with a detailed description of the Army's Crisis-Action System.

GLOBAL TRANSPORTATION NETWORK

2-7. USTRANSCOM's mission of global mobility management requires a responsive transportation system. The key to this is the development of the GTN. The GTN is not another transportation data base; it is a network of systems. It has been described as a capability integrating hardware, software, and communications system. The GTN ties together existing transportation related data bases. It does not create a new data base. It gives the means to access C4 systems that support global transportation management. GTN systems can be divided into the following three functional categories:

- Systems required to support the planners as they gather the transportation requirements of the supported CINCs, develop operational plans, and evaluate the effectiveness of those plans.
- Systems for command and control that principally support mobilization and deployment.
- Systems that support ITV.

NOTE: ITV is the near real-time monitoring/tracking of unit and non-unit cargo and personnel from transportation origin to destination. This is the area in which USTRANSCOM has focused most of its efforts during the development of the demonstration prototype and the operational prototype.

TRANSPORTATION COORDINATOR-AUTOMATED INFORMATION FOR MOVEMENTS SYSTEM

2-8. DOD requires an automated capability to support rapid deployment of US forces and to furnish accurate and timely data to manage that deployment process. TC-AIMS is the generic term for the computer hardware, software, procedures, and other systems used by transportation coordinators throughout the services to automate planning, organizing, coordinating, and controlling unit deployment activities.

2-9. By performing activities common to both unit and non-unit movements with TC-AIMS equipment, commanders and movement personnel improve deployment proficiency. TC-AIMS offers timely and accurate information to the JPEC. The services are progressing with their unique system developments as follows:

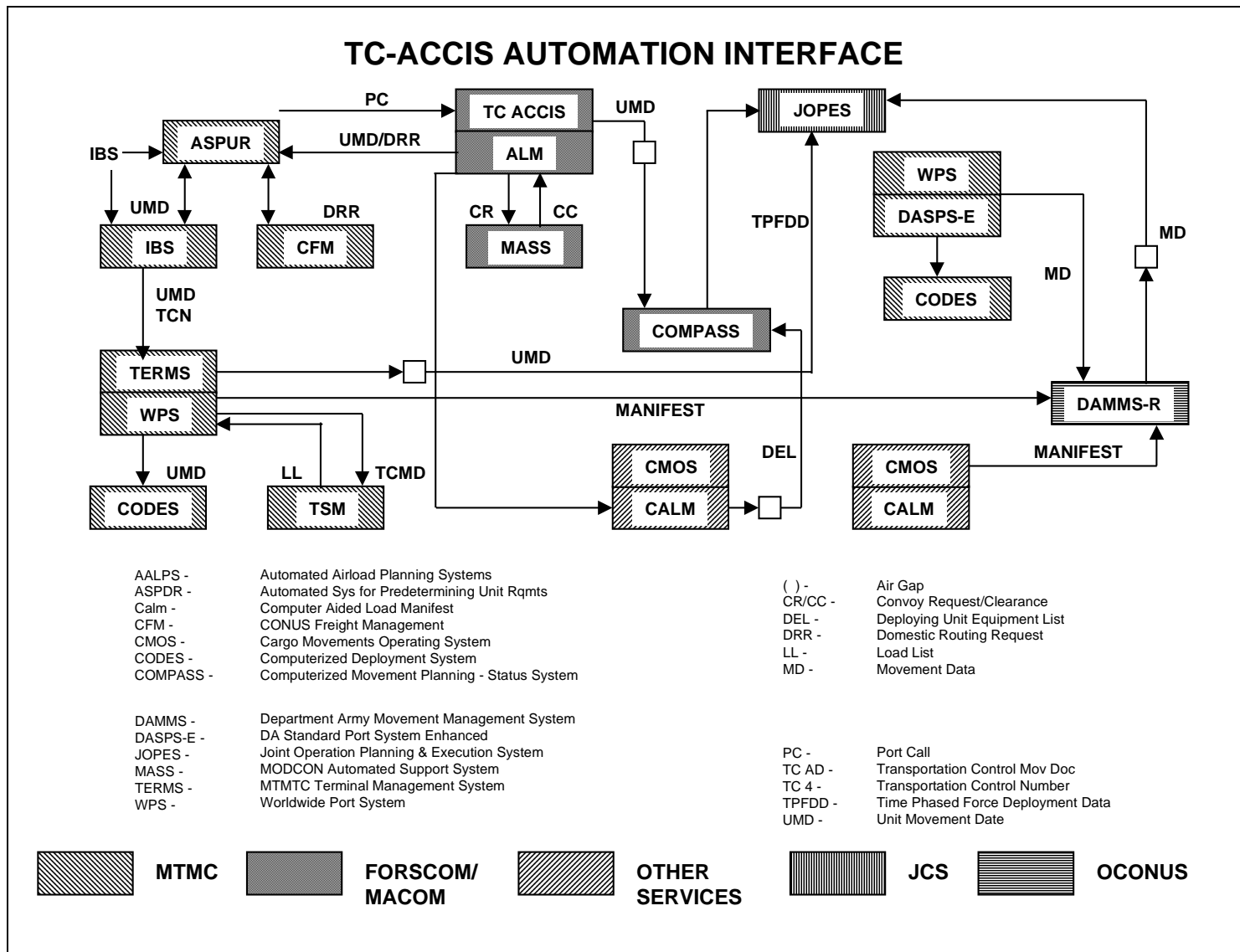
- Army TC-ACCIS.
- Air Force COMPES.
- Marine Corps MDDS II.
- Navy TC-AIMS.

TRANSPORTATION COORDINATOR-AUTOMATED COMMAND AND CONTROL INFORMATION SYSTEM

2-10. TC-ACCIS is an information management and data communications system that Army units use to plan and execute deployments. TC-ACCIS speeds up the processing of mobility requirements and the flow of information to USTRANSCOM components. TC-ACCIS users include commanders, ITOs, UMCs, ICUMOs, DTO, brigade movement officers, and UMOs. Figure 2-3, page 2-4, shows TC-ACCIS automation interface.

2-11. Army units operate TC-ACCIS on PCs and communicate with an installation central computer via modem or on terminals at the ITO. Units are responsible for maintaining accurate equipment lists.

Figure 2-3. TC-ACCIS Automation Interface



2-12. TC-ACCIS software resides on computers at the ITOs of CONUS installations and ITOs or movement control units in overseas theaters. The computer performs all coordination, internal and external communication, and central data management functions. Access to information and communication between command levels follow the chain of command. The ITO, using the central computer, will consolidate requirements and transmit equipment lists and transportation requests to systems outside TC-ACCIS. For example, CONUS ITOs transmit data to FORSCOM's COMPASS data base. The MACOMs maintain UMD for joint operations planning.

2-13. Through TC-ACCIS, the ITO provides MTMC the deployment requirements, such as the DEL, domestic routing requests, export traffic release requests, and passenger transportation requirements. TC-ACCIS automates most transportation functions at the unit and installation level. Of particular importance to the unit's deployment mission are the following functions of TC-ACCIS:

- Maintaining unit equipment list.
- Maintaining deployment equipment list.
- Preparing GBLs.
- Preparing vehicle load card.
- Preparing vehicle/container packing list.
- Preparing advance TCMD (DD Form 1384).
- Preparing convoy march tables.
- Preparing DD Form 1266.
- Preparing DD Form 1265.
- Preparing unit equipment manifest.
- Preparing executable rail load plan.
- Preparing BBPCT material requirements list.
- Preparing rail load schedules.
- Interfacing with the ALM.

TC-ACCIS AIRLOAD MODULE

2-14. ALM, formerly the AALPS, is a computerized system used to produce air manifests containing all information required by the AMC. It is used by UMOs, deployment planners, and contingency planners/force designers to plan and execute air movement as well as design and analyze force packages. ALM operates with DEL data from TC-ACCIS or in a stand-alone configuration. ALM can do the following:

- Rapidly estimate airlift requirements for a given deployment list.
- Build, store, and maintain preplanned contingency packages.
- Provide automated assistance to produce individual aircraft load plans.

UNIT MOVEMENT OFFICER

2-15. The UMO prepares his unit's air movement plans for planned or actual deployment. ALM will automatically produce first-cut load plans and will provide computer assistance to modify those loads for execution.

DEPLOYMENT PLANNER

2-16. The deployment planner is usually the DTO or his equivalent. The DTO is responsible for determining airlift requirements for a planned or actual deployment. ALM supports deliberate planning by rapidly providing estimates of airlift requirements for a given deployment list.

CONTINGENCY PLANNER/FORCE DESIGNER

2-17. The contingency planner/force designer is usually the MACOM's primary transportation planner who is concerned with the impact of airlift requirements on a given contingency plan or force design. ALM permits building of predeveloped contingency packages and will determine airlift requirements for those packages for any delivery method and sortie configuration.

COMPUTER AIDED LOADING AND MANIFESTING SYSTEM

2-18. CALM is an Air Force designed automated system used to create individual air cargo manifest for AMC organic aircraft. It does not provide airlift requirements estimates or preplanned contingency packages. This system can be used by any service or organization.

COMPUTERIZED MOVEMENT PLANNING AND STATUS SYSTEM

2-19. COMPASS is a FORSCOM system that provides deployment planning systems with accurate Army unit movement requirements. Although COMPASS is not a property accountability system, it describes unit property and equipment in transportation terms. It converts UMD into a COMPASS AUDEL and maintains UMD for use in mobilization and deployment planning. This data originates from the UMD provided by Army units. The preferred system to transmit UMD to COMPASS is TC-ACCIS. However, manual systems, such as 900-R series cards, are still used. UMCs validate and transmit the data to FORSCOM COMPASS. COMPASS reformats the data and updates JOPES. FORSCOM provides detailed guidance on how to prepare and submit UMD in FORSCOM Regulation 55-2. Figure 2-3 shows how COMPASS is integrated with deployment planning systems.

WORLDWIDE PORT SYSTEM

2-20. The WPS is a single Standard Terminal Documentation and Accountability System (see Figures 2-4 and 2-5, page 2-9). The WPS replaces TOLS, DASPS-E, TSM, DDN, and MAISRC. The WPS provides the following:

- Ocean terminals with the ability to document cargo moving through a port (manifests, TCMDs, and customs documentation).
- Ocean terminals with the ability to account for and monitor the movement of cargo through a port.
- Terminals and regional commanders the information necessary to manage the movement of ocean cargo.
- ITV information to other DOD systems.

IMPROVED COMPUTERIZED DEPLOYMENT SYSTEM

2-21. ICODES operates from a PC and provides load planning assistance to support deployment by vessel. ICODES main functions are to provide a computerized means of the following:

- Calculating trim and stability.
- Developing prestow plans and preparing final stowage plans for cargo loaded.
- Developing load diagrams.
- Tracking cargo placement.
- Prioritizing discharge of cargo.
- Developing railcar, container, and flatrack load plans.

NOTE: The accuracy of ICODES depends on the accuracy of the DEL. See Figure 2-3 for interface.

AUTOMATED SYSTEM FOR PROCESSING UNIT REQUIREMENTS

2-22. ASPUR is an Intercomputer Data Communications Subsystem that interfaces between noncompatible automated movement systems. MTMC area commands use this system to process and transfer unit and non-unit movement files between connected systems. Used as an interface between installations and ports, ASPUR gives MTMC area commands the ability to process movement requirements for a crisis or for exercises. ASPUR communicates with connecting systems through DDN or DDD.

DEPARTMENT OF THE ARMY MOVEMENT MANAGEMENT SYSTEM-REDESIGN

2-23. DAMMS-R is the theater movement control system that will link to strategic systems to perform reception and onward movement tasks. The information is used by movement control units, mode operators, terminal operators, and materiel managers for planning receipt, discharge, storage, release, and onward movement of unit equipment and cargo. DAMMS-R also provides managers with the following:

- On-line computer terminals with the capability of entering transactions and producing reports.
- Automatic data calculations.

- Rapid and responsive information and report generation to satisfy transportation management needs.
- Standard, consistent, same-day reporting to theater movement managers of all transportation movements from point of origin to destination.

Figure 2-6 (page 2-10) shows the interface between DAMMS-R and strategic movement control systems. Refer to FM 55-10 for additional information on theater movement control.

UNIT MOVEMENT DATA TRANSACTIONS FOR CRISIS RESPONSE

2-24. When the CJCS issues a Warning Order, units will verify their UMD and the MACOM will update AUEL data files. The deploying units tailor their AUEL based on mission requirements, commander's guidance, and METT-T. The resulting tailored AUEL becomes the DEL and prescribes which pieces of equipment and supplies will move. The deploying units must update their DEL with actual weights and dimensions and provide the movement requirements to the UMC in TC-ACCIS format. The UMC consolidates these DELs and sends them to FORSCOM and the MTMC area command via ASPUR which controls the deploying unit's SPOE. The MTMC area command uses this data to develop cargo manifests (WPS) and stow plans (ICODES) for the SPOEs. The SPOEs use these products from the DEL in making final preparations for vessel loading.

2-25. When CJCS issues the Execute Order, MACOMs issue a movement order, MTMC issues a port call message, and AMC issues an ATO. At the same time, MSC notifies MTMC of the confirmed booking and vessel nomination. MTMC's area commands transmit the DEL to the SPOEs via ASPUR. The port operators at the SPOEs develop prestow plans and prepare to receive and load equipment. All data transmission will be done mainly via automation support systems.

2-26. AMC uses the GDSS to provide air movement messages to APOEs and to ALCSs. The GDSS message includes air flow data for deploying units.

PERSONNEL DEPLOYMENT PLANNING SYSTEMS

2-27. During the stages of deployment, personnel managers must concentrate their efforts in the following four areas:

- Accessing mobilizing reserve component soldiers in the active component.
- Accounting for all assigned personnel.
- Reassigning nondeployable soldiers from deploying units and cross-level personnel.
- Providing theater fillers and replacements.

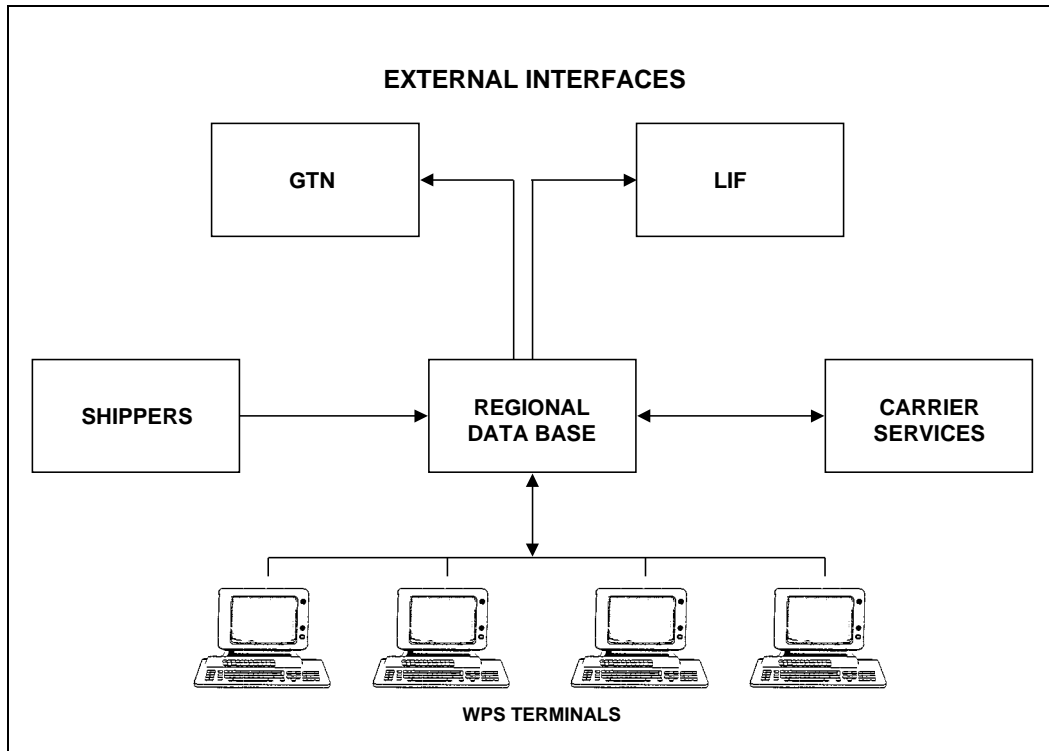


Figure 2-4. Worldwide Port System

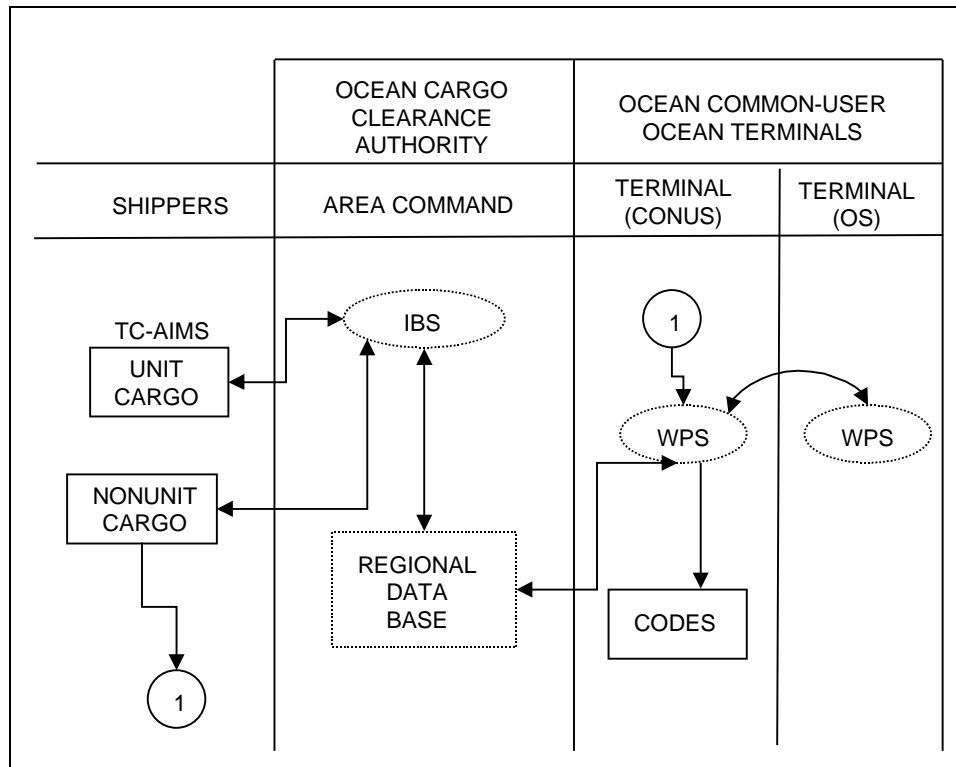


Figure 2-5. Ocean Cargo Clearance Authority

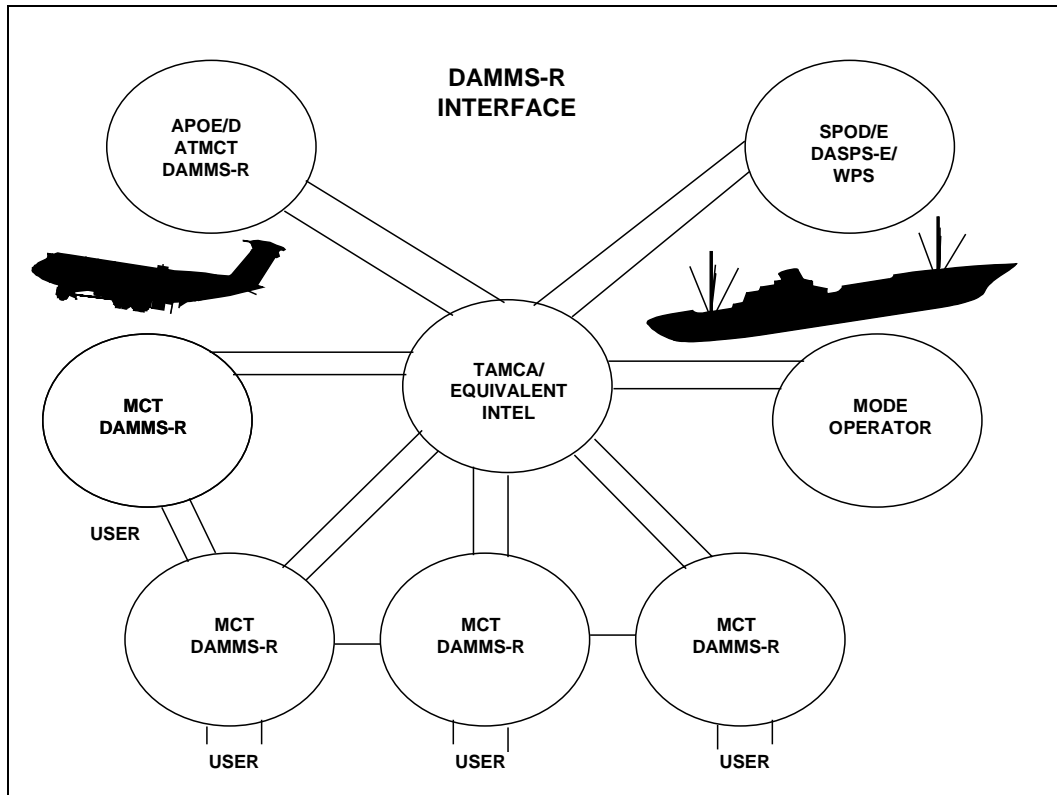


Figure 2-6. DAMMS-R Interface

2-28. Two primary personnel automation systems (SIDPERS and ROAMS) are used to accomplish this mission.

STANDARD INSTALLATION DIVISION PERSONNEL SYSTEM

2-29. SIDPERS provides automated personnel service support for active and reserve Army soldiers. It supports strength accounting, personnel management, personnel actions, and exchange of information with other automated systems. SIDPERS provides commanders the ability to optimize allocation and use of personnel assets to meet peacetime, mobilization, and wartime personnel service support requirements.

2-30. SIDPERS, a STAMIS, operates on the TACCS. Also referred to as SIDPERS TACCS, it provides a standardized personnel system responsible for strength reporting and personnel administration. The main features of the system are data entry, ad hoc query, word processing, spread sheet, C2SRS (battle rosters, personnel requirements reports, personnel summary reports, and task force summary), and miscellaneous personnel functions.

REPLACEMENT OPERATIONS AUTOMATION MANAGEMENT SYSTEM

2-31. The PERSCOM provides theater fillers and replacements in support of CJCS OPLANs and is the HQDA executive agent for NRP distribution planning and execution. To accomplish this, automated procedures are developed and implemented to position filler and casualty replacements to the supported CINC.

2-32. The MOD, PERSCOM, assists the ASCC in projecting individual manpower requirements during OPLAN execution. Once executed, MOD is responsible for managing replacement flows to the theater and ensuring supported units are maintained at an acceptable personnel strength level. Currently, the following three automated systems support this mission:

Automation of the Theater Shelf Requisitioning Process

2-33. AUTOREP generates fillers and casualty replacement requirements by personnel category, MOS, and grade and rank to predict the number of replacements required over time. Its product is known as the "Shelf Requisition."

NRP Flow Computer Assisted Program

2-34. FLOWCAP is used by PERSCOM and CRCs to schedule, control, and track the flow of replacements from the CRC to the theater. Applications also provide manifest data for AMC, advance arrival information for the ASCC, and generate internal reports for the CRC to manage and process replacements.

Automation of the Casualty Analysis Process

2-35. AUTOCAP compares actual casualty data and OPLAN modifications against projected and actual flow of casualty replacements and fillers. It also allows the ASCC to adjust projected requirements.